

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/004356

A. CLASSIFICATION OF SUBJECT MATTER
 Int.Cl⁷ F02D29/02, G01P15/00, G01P3/488, G08C17/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 Int.Cl⁷ F02D29/02, G01P15/00, G01P3/488, G08C17/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2005
 Kokai Jitsuyo Shinan Koho 1971-2005 Toroku Jitsuyo Shinan Koho 1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2002-340863 A (Toyota Central Research And Development Laboratories, Inc.), 27 November, 2002 (27.11.02), Full text; all drawings (Family: none)	1-17, 28
Y	JP 2003-514707 A (PIRELLI PNEUMATICI S.P.A.), 22 April, 2003 (22.04.03), Full text; all drawings & WO 2001/036241 A1 & US 6561018 B2 & EP 1230115 A1	1-17, 28
Y	JP 2004-69071 A (NSK Ltd.), 04 March, 2004 (04.03.04), Full text; all drawings (Family: none)	1-17, 28

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search
02 June, 2005 (02.06.05)Date of mailing of the international search report
21 June, 2005 (21.06.05)Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

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PCT/JP2005/004356

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 10-119743 A (Aisin Seiki Co., Ltd.), 12 May, 1998 (12.05.98), Full text; all drawings & US 5869943 A & DE 19746889 A1	1-17, 28
Y	JP 10-86705 A (Denso Corp.), 07 April, 1998 (07.04.98), Full text; all drawings & US 5947221 A & EP 842836 A2	1-17, 28
Y	JP 11-263140 A (Fuji Heavy Industries Ltd.), 28 September, 1999 (28.09.99), Full text; all drawings (Family: none)	5-12
Y	JP 10-111205 A (Motorola, Inc.), 25 April, 1998 (25.04.98), Full text; all drawings & US 5883305 A & EP 832765 A2	14, 15
A	JP 57-197694 A (Aisin Seiki Co., Ltd.), 03 December, 1982 (03.12.82), Full text; all drawings & US 4450431 A & EP 67547 A2 & EP 201149 A2	1-28